

Drip Irrigation Emitter Comparison

There are many ways to apply water to plants with drip irrigation. The component at the end of the line that actually delivers water to the plant is called an emitter or dripper. Drip emitters may drip very slowly or output a steady flow of water. Some are staked and some stream water in "fingers" or a fine spray. Pressure-compensating drip emitters contain a rubber or silicone diaphragm that allow them to maintain the same output even if the water pressure fluctuates. Non-pressure-compensating drip emitters are less expensive but the flow will vary with changes in elevation and pressure.


Pressure Compensating Emitters

- Deliver the stated gph (gallons per hour) even if pressures range is 10-40 psi
- Works well with elevation changes
- Self-flushing to reduce clogging

Non-Pressure-Compensating Emitters

- Output will vary with changes in pressure & elevation
- Works best with flat landscapes
- Excellent for gravity-fed drip irrigation systems



Emitter Type	Uses	Pressure Compensating	Removable Top	Outputs (gph)	Pattern	Connects to	Connection Type	Adjustable	Price
 PCE	Precise watering, changes in elevation	Yes	No	1/2, 1, 2	n/a	3/4", 1/2" & 1/4" drip tubing	1/4" barb	No	\$.21 - \$.35
 IC	Changes in elevation	Yes	Yes	1/2, 1, 2	n/a	3/4", 1/2" & 1/4" drip tubing	1/4" barb	No	\$.15 - \$.26
 PCP	Changes in elevation - Self Peircing	Yes	Yes	1/2, 1, 2	n/a	3/4", 1/2" & 1/4" drip tubing	1/4" barb	No	\$.15 - \$.26
 TAE	Flat landscapes, low pressure	No	Yes	1, 2, 4	n/a	3/4", 1/2" & 1/4" drip tubing	1/4" barb	No	\$.075 - \$.13
 ITE	Flat landscapes, low pressure	No	Yes	1/2, 1, 2	n/a	3/4", 1/2" & 1/4" drip tubing	1/4" barb	No	\$.075 - \$.13
 SR (stream)	Cover large area with stream spray	No	Yes	0 - 10	full circle, half circle	3/4", 1/2" & 1/4" drip tubing or micro stakes	barb or thread	Yes	\$.16 - \$.22
 SR Stake (Stream on a stake)	Cover large area with stream spray, good in flower pots	No	Yes	0 - 10	full circle, half circle	3/4" or 1/2" drip tubing	on stake with barb	Yes	\$.23 - \$.40
 SM (Umbrella pattern)	Cover large area with fine spray	No	Yes	0 - 24	full circle	3/4", 1/2" & 1/4" drip tubing or micro stakes	barb or thread	Yes	\$.20 - \$.40
 SM Stake (Umbrella Pattern on a stake)	Cover large area with fine spray, good in flower pots	No	Yes	0 - 24	full circle	3/4" or 1/2" drip tubing	on stake with barb	Yes	\$.29 - \$.50
 BP (Pressure Compensating Bubbler)	Sprinkler retrofits	Yes	No	6, 10, 20 per outlet	n/a	1/2" threaded riser	1/2" female threads	No	\$ 1.40 - \$ 2.00